

Defence Institute of Advanced Technology, Pune

400 MHz Nuclear Magnetic Resonance Spectrometer:

Make: Bruker

Model: Ascend 400

Applications: Characterization of Organic, Organometallic Compounds, Monitoring Reaction



Differential Scanning Calorimeter:

Make: NETZSCH

Model: DSC 204 FI Phoenix

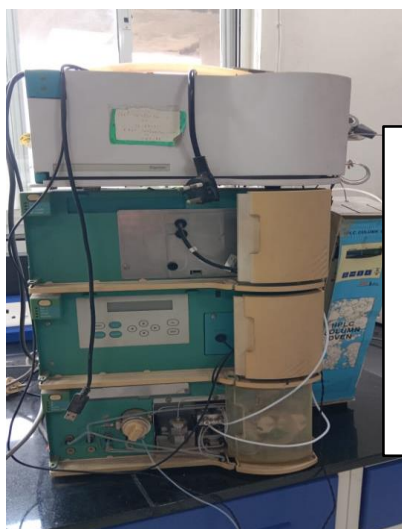
Applications: To measure various thermal properties of materials such as T_g, heat capacity, melting temperature etc.

X-Ray Diffraction Spectrometer:

Make: Proto Manufacturing

Model: Proto AXRD

Applications: Identification of unknown crystalline materials.



HPLC Chromatography:

Make: HITACHI (HPLC)

Model: L-2490

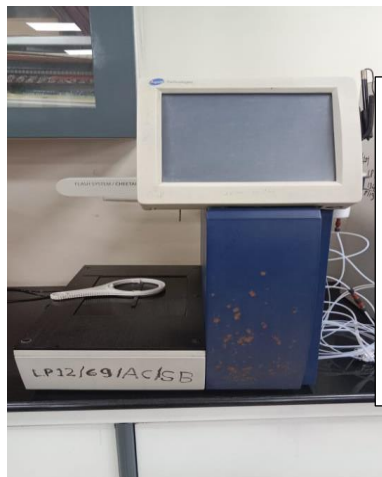
Applications: To purify individual constituents from mixture

Thermogravimetric Analyser-FTIR:

Make: Perkin Elmer

Model: STA 8000

Applications: Thermal Analysis of Compounds



Flash Chromatography:

Make: Agela Technology

Model: MP200

Applications: To purify individual constituents from mixture



Magnetic Force microscopy (MFM)

Make: Oxford Instrument

Model: VFM3

Applications: To image various magnetic structures including domain walls, closure domains, recorded magnetic bits, etc.

GAS Chromatography:

Make: Thermo Scientific

Model: Trace GC700

Applications: To purify individual constituents from mixture





Thermogravimetric Analyser

Make: Perkin Elmer

Model: STA-6000

Applications: Thermal Analysis of Compounds

Fluorescence Spectrophotometer:

Make: AGILENT

Model: G9800A

Applications: For compound/material characterization



UV Spectrophotometer:

Make: Analytica Jena

Model: SPECORD 210

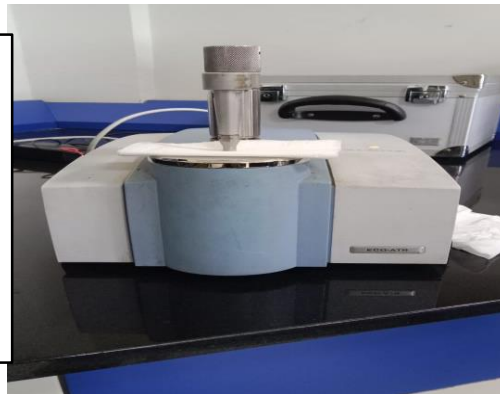
Applications: For compound/material characterization

FTIR Spectrometer:

Make: BRUKER

Model: ALPHA

Applications: For compound/material characterization





Particle Size Analyser:

Make: Sympatec

Model: Nanophox

Applications: To measure the size of ultra fine particles

Scanning Electron Microscope:

Make: Zeiss

Model: Sigma

Applications: High-resolution images of shapes of objects (SEI) and chemical compositions

